

IN THE CLAIMS:

Rewrite the pending claims and add new claims as follows:

1. (Currently Amended) An electronic silicon device comprising:
a silicon substrate comprising a planar surface;
a trench disposed in said planar surface of said silicon substrate, said trench comprising a wall and a bottom;
a silicon dioxide layer disposed on the bottom of said trench and also on a first portion of said wall, said layer being terminated at a distance D below said planar surface of said silicon device;
a polysilicon fill disposed on the surface of said silicon dioxide layer and on a second portion of said wall; and
a metallization disposed on the planar surface of said silicon substrate and an upper surface of said polysilicon fill.
2. (Currently Amended) The electronic silicon device of claim 1, wherein said polysilicon fill comprises an upper surface that is within a distance D from said planar surface of said silicon substrate the upper surface of said polysilicon fill is approximately level with or above said planar surface of said silicon substrate.
3. (Original) The electronic silicon device of claim 1, further comprising a junction field effect transistor (JFET).
4. (Canceled)
5. (Original) The electronic silicon device of claim 1, further comprising an integrated circuit.
6. (Original) The electronic silicon device of claim 1, wherein said trench is disposed above a gate.
7. (Original) The electronic silicon device of claim 1, wherein said trench is disposed adjacent to a source.

8. (Original) The electronic silicon device of claim 1, wherein said silicon dioxide layer is between 100 angstroms and 3000 angstroms in thickness.

9. (Original) The electronic silicon device of claim 1, wherein said silicon dioxide layer is thermally grown.

10. (Original) The electronic silicon device of claim 1, wherein said silicon dioxide layer is deposited.

11-20 (Cancelled)

21. (Currently Amended) A semiconductor device comprising:
a silicon substrate;
a trench disposed in said silicon substrate, said trench comprising a wall and a bottom;
a silicon dioxide layer disposed on the bottom of said trench and also on a first portion of said wall, said layer being terminated below an original surface of said silicon substrate;
a polysilicon fill disposed on the surface of said silicon dioxide layer and on a second portion of said wall; and
a metallization disposed on the original surface of said silicon substrate and an upper surface of said polysilicon fill.

22. (Previously presented) The semiconductor device of claim 21, wherein said polysilicon fill comprises an upper surface that is disposed between a top surface of said silicon dioxide layer and said original surface of said silicon substrate.

23. (Previously presented) The semiconductor device of claim 21, further comprising a junction field effect transistor (JFET).

24. (Canceled)

25. (Previously presented) The semiconductor device of claim 21, further comprising an integrated circuit.

26. (Previously presented) The semiconductor device of claim 21, wherein said trench is disposed above a gate structure.

27. (Previously presented) The semiconductor device of claim 21, wherein said trench is disposed adjacent to a source structure.

28. (Previously presented) The semiconductor device of claim 21, wherein said silicon dioxide layer is between 100 angstroms and 1000 angstroms in thickness.

29. (Previously presented) The semiconductor device of claim 21, wherein said silicon dioxide layer is thermally grown.

30. (Previously presented) The semiconductor device of claim 21, wherein said silicon dioxide layer is deposited.

31. (Previously presented) The electronic silicon device of claim 1, wherein the polysilicon fill disposed on the second portion of said wall is in contact with a doped region of said silicon substrate.

32. (Previously presented) The semiconductor device of claim 21, wherein the polysilicon fill disposed on the second portion of said wall is in contact with a doped region of said silicon substrate.